

cellular tumor antigen p53 - chicken
 N;Alternate names: nuclear oncoprotein p53
 C;Species: Gallus gallus (chicken)
 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
 C;Accession: S02193
 R;Sousou, T.; Beuer, A.; Kress, M.; Stehelin, D.; May, P.
 Nucleic Acids Res. 16, 11383, 1988
 C;Keywords: apoptosis; cell division control; DNA binding; homotetramer; nucleus; phosphoprotein; nucleotide sequence of a cDNA encoding the chicken p53 nuclear oncoprotein.
 A;Reference number: S02193; MUID:89083584
 A;Accession: S02193
 A;Molecule type: mRNA
 A;Residues: 1-367 <SEQU>
 A;Cross references: EMBL:X13057; NID:953740; PIDN:CAA31456.1; PID:963741
 C;Superfamily: cellular tumor antigen p53
 C;Keywords: apoptosis; cell division control; DNA binding; homotetramer; nucleus; phosphoprotein; nucleotide sequence of a cDNA encoding the chicken p53 nuclear oncoprotein.
 A;Accession: S02193
 A;Molecule type: mRNA
 A;Residues: 1-367 <SEQU>
 Query Match 23 0%; Score 778; DB 1; Length 367;
 Best Local Similarity 44.1%; Pred. No. 5.0e-47;
 Matches 164; Conservative 56; Mismatches 106; Indels 46; Gaps 7;
 QY 15 FHEHLSSLEPDSTYDPLPQSSRGNNVEVGGTDSMDVHLEMTMSYMAQENLISSTMDD 74
 DDB 15 FMDLNWMLPSMQOLPLPDEPHSNQEL-----SPLPEP 46
 QY 75 MSSRAASAPSPYTPHEASVYPTHSYPAQPSSTPDTMSAPVIPSNTDPGPRBHFEVTFQQS 134
 DDB 47 SDPPPPPPIPPLAAAPPLNPPTPRA----ASPVVPSTEEYGGDEDFRYGVFA 101
 QY 135 STAKSATWTTSPKLKLYCIAKTCPIQIKVSTPPPGTAIRAMPYTKRAEHHTDYVKRC 194
 DDB 102 GTAKSTVCTCSPVLMKVICLARCPVQVRGYAPPGSSLRAVAYKKSEHVAEVRRIC 161
 QY 195 PNHELGRDFNEGOSAPASHLIRVEGNNLQSOYDDPYTGROSVVPPYEPPOYGTEFTTLY 254
 DDB 162 PHHERGGGTG-LAPAQHLLIRVEGNPARYHDETTKRHSSVVPPYEPPEVGSDDTTLY 220
 QY 255 NMCMNSSCVGGMNRRLPILLTLEMRCQVLARRSFGRICACPGDRKADEDHYREQQA 314
 DDB 221 NMCMNSCCVGMNRRLPILLTLEGPGQQLGRRCFPRVACPGDRKTEEENFRKGCG 280
 QY 315 LNESSAKNGAASKRAFKRQPPAVPALAGVVKRRGDEDTYLQVRGRNFETILMKLES 374
 DDB 281 A-----GGVAKKA--MSPP-TEAPELLPKKVLPNDEIIFYLQVRGRRYEMKEINEA 330
 QY 375 LELEM--LYQPQ 384
 DDB 331 LQLAEQSGSAFRP 342
 RESULT 3
 cellular tumor antigen p53 - bovine
 N;Alternate names: tumor-suppressor protein p53
 C;Species: Bos taurus (cattle)
 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
 C;Accession: S51648
 R;Dequiedt, F.; Willems, L.; Burny, A.; Kettmann, R.
 A;Description: Nucleotide sequence of the ovine p53 tumor-suppressor gene cDNA and its g
 A;Reference number: S51648
 A;Accession: S51648
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Residues: 1-386 <DEQP>
 A;Cross-references: EMBL:XB1704; NID:9602332; PIDN:CAA57348.1; PID:9602333
 C;Superfamily: cellular tumor antigen p53
 C;Keywords: apoptosis; cell division control; DNA binding; homotetramer; phosphoprotein; F168_171_231_235/Binding site: zinc (Cys, His, Cys)
 F168_171_231_235/Binding site: phospho-Y1-RNA (Ser) (covalent) *status predicted
 F168_171_231_235/Binding site: phospho-Y1-RNA (Ser) (covalent) *status predicted

RESULT 5

Qy 188 TDVVKRCPDNLGRDFNEGQS-APASHLIRVEGNNLSQLTYDPYGRQSYVVPYEPPOVG 246
 Db 173 TEVYRRCPHERS--SEGDGLAPPOLIRTEGNNHAEYLDRKQFRHSSVVPYEPPEVG 229
 C;Species: Xenopus laevis (African clawed frog)
 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
 C;Accession: A29376; S61531; S72313; T51659
 R;Sousasi, T.; de Fromental, C.C.; Mechali, M.; May, P.; Kress, M.
 Oncogene 9, 71-78, 1987
 A;Title: Cloning and characterization of a cDNA from Xenopus laevis coding for p53
 A;Reference number: A29376; MUID:88143684
 A;Accession: A29376
 A;Molecule type: mRNA
 A;Residues: 1-363 <SOD>
 A;Cross-references: EMBL:X05191; PIDN:CAA28821_1; PID:964962
 R;Hoever, M.; Clement, J.H.; Wedlich, D.; Montenarh, M.; Knochel, W.
 Oncogene 9, 109-120, 1994
 A;Title: Overexpression of wild-type p53 interferes with normal development in X
 A;Reference number: T51639; MUID:94134403
 A;Accession: S61531
 A;Molecule type: mRNA
 A;Residues: 1-293-295-363 <HOE>
 A;Cross-references: EMBL:X7546; PID:9468513; PID:CAA54672_1; PID:9468514
 R;Hoever, M.; Clement, J.; Wedlich, D.; Montenarh, M.; Knochel, W.
 Submitted to the EMBL Data Library, March 1994
 A;Accession: S72313
 A;Molecule type: mRNA
 A;Residues: 1-51, S, 53-70,72-293, 295-363 <HOW>
 A;Cross-references: EMBL:X77546; PID:9468513; PID:CAA54672_1; PID:9468514
 C;Genetics:

A;Gene: P53
 C;Superfamily: cellular tumor antigen p53
 C;Keywords: apoptosis; cell division control; DNA binding; homotetramer; nucleus
 E;150,153,213,Binding site: zinc (Cys, His, Cys, Cys) #status predicted
 F;362/Binding site: Phosphoryl RNA (Ser) (covalent) #status predicted

Query Match 21.9% Score 741; DB 1; Length 363;

Best Local Similarity 41.7%; Pred. No. 2.2e-44;
 Matches 169; Conservative 54; Mismatches 92; Indels 90; Gaps 12;

Qy 1 MAQSTSPD---GGTTFELWSSLEPD-----STFDLPOSSRGNNVYGGT 45
 Db 1 MPSSSEGMDDPLSOFTFEDWLSL-PDPLQTYTCRLDNLSEFPDYLA----- 49
 Qy 46 DSSMDYFHLEMGTTSYMAQNNLSSMDOMSSRAASAPYTPBHAASVPTPYSQAPSST 105
 Db 49 -ADMTYLIQ -EGLMGN-----AVPTTSCA----- 71
 Qy 74 QMSRAAASPPPTPEHAAASPVHSPYQPSSEFDMSPAVPTSDYGPHPFEVTFQ 133
 Db 67 AAATAAEDPVTETPAPASA-TPWLSS-----VPSYTKTFQGDYGRFLGFLH 115
 Qy 134 SSTAKSATWTKYSPLLKKLYCQAKTCPDQIYKSTPPPPGAIARAMPVYKAHYTDVYKR 193
 Db 116 SGTAKSVTCTYSPLSLNLFCQLAKTPTVQLMNSTPPGTRVANAYKLQLQNTTEVRR 175
 Qy 194 CPNHELDGFNEGQS-APASHLIRVEGNNLSQLTYDPYGRQSYVVPYEPPOVG 212
 Db 176 CPHHERS--SEGDGLAPPOLIRTEGNNHAEYLDRKQFRHSSVVPYEPPEVG 292
 Qy 253 LNFMCMSSCYGMMNRPILTITLEMRDGCVLGRSFEERICACPGDRKAEDHYREQ 312
 Db 233 HNMYMCNSCCGMMNRPILTITLEDPSGNLGNISFEVRICACPGDRRTREKNTKK 292
 Qy 313 ---QALNESSAKNGAASKRAFKQSPPAVLAGVKKRHHGDEDTYLQVRENPFL 368
 Db 293 GPCPEIPPKPSAKRALPTNTS--SSPP-----PKRKTLUDGEYFTLKIRGHERKMF 341
 Qy 369 MKLESLEME 379
 Db 342 QELNAELELKD 352

RESULT 7

RES2192

cellular tumor antigen p53 - rat
 N:Alternate names: gene p53; protein: nuclear oncoprotein p53
 C:Species: Rattus norvegicus (Norway rat)
 C:Date: 10-Sep-1999 *text_change 10-Sep-1999
 C:Accession: S02192; S41149
 R:Sousi, T.; de Fromental, C.C.; Breugnot, C.; May, E.
 Nucleic Acids Res. 16, 11844, 1988
 A:Title: Nucleotide sequence of a cDNA encoding the rat p53 nuclear oncoprotein.
 A:Reference number: S02192; MUID:89083595
 A:Accession: S02192
 A:Molecule type: mRNA
 A:Residues: 1-391 <SOU>
 A:Cross-references: EMBL:X13058; PID:956828; PID:CAA31457.1; PID:956829
 R:Hulla, J.E.; Schneider, R.P.
 Nucleic Acids Res. 21, 711-711, 1993
 A:Title: Structure of the rat p53 tumor suppressor gene.
 A:Reference number: S41149; MUID:9118168
 A:Status: preliminary; nucleic acid sequence not shown; translation not shown
 A:Molecule type: DNA
 A:Residues: 1-173, W, 175-391 <HDL>
 A:Cross-references: EMBL:107909
 A:Note: the nucleotide sequence was submitted to the EMBL Data Library, December 1992
 A:Introns: 25/2; 32/3; 12/3; 185/1; 259/2; 305/1; 329/3; 365/2
 C:Superfamily: cellular tumor antigen p53
 C:Family: apoptosis; cell division control; DNA binding; homotetramer; nucleus; phosphoprotein; zinc finger
 F:174,177-236,245/Banding site: zinc (Cys, His, Cys) #status Predicted
 F:390/Binding site: phosphoryl-RNA (Ser) (covalent) #status Predicted

Query Match 21.4%; Score 724.5; DB 2; Length 391;
 Best Local Similarity 43.5%; Pred. No. 3.4e-43;
 Matches 165; Conservative 54; Mismatches 103; Indels 57; Gaps 10;
 QY 21 SLEP--DSTYFDLPSSRGSNNNEVGGTGTSSMDVFLLEGMTTSVMAQFNLLSSTMQMS 77
 Db 9 SLEPPPLSQETEDLWNLPPENL-----LTTSLNPNPYDDLSAED---- 49
 QY 78 RAASASYTPEHAASWP-THSPIYAQPSSFTDMSPAPV-----IPSNTDYPGPHEF 128
 Db 49 -VANWNEDPEEGLRLPAAAPAPAPAPAPATSWPLSSSSPSQKTYHGNNGER 107
 QY 129 VTFQQSSTAKSATWTSPLRKLYCQIAKTCPIOLIVKSPPPGTTAATAMPYKKAAEVT 188
 Db 108 LGFLHLHSGTAKSYTCIYSPCLNKLFCOLAKTCPIOLWMDSTPPGTRVRAAMAIKKKSQHMT 167
 QY 189 DYVKRCBNHELGDFNEQGQASPHILYREGNNLSQLYDPTGROSSTVVYPEPPQTE 248
 Db 168 EVVRCPHHERCSD-SDG-LAPQHILYEGNLRAELLDRTFRHSSVVPEPPGSD 225
 QY 249 FTTLYNMCMSSCYGMNRPLITITLEMRDQGVLRGRSFGRIGCAGPGRDKADEHD 308
 Db 226 CTIRHNYMCMSSCYGMNRPLITITDSSSNLGRNSFEVRCPGDRRTBEEN 285
 QY 309 YREQQLNESSAKNG-----AASKRAFKQSPPAVPAALGAGYVKKRHGDEDTYXQVR 360
 Db 286 FR-----KKGEPCPCELPGPGSSKRAL---PTTTDSSPOTKKPKLDEGYFFIKIR 331
 QY 361 GRENFELMLKLESLELME 379
 Db 332 GREREMFRELNEALELKD 350
 RESULT 9
 DNFB53

Query Match 21.7%; Score 735.5; DB 1; Length 391;
 Best Local Similarity 42.8%; Pred. No. 5.8e-44;
 Matches 167; Conservative 55; Mismatches 87; Indels 81; Gaps 12;
 QY 14 TFEHHLNSLEPDSTYFDLPSSRGSNNNEVGGTGTSSMDVFLLEG-----HLEGMTTSVMAQFN 66
 Db 18 TFSCLWNLPPDDI---LPTA-----TGSPNSMEDFLPQDAELEG----- 59
 QY 67 LLSSTDQMSSRAASASPTPEHAASWP-HSPYAQPSSFTDMSPAPV----- 115
 Db 59 -----PEEAQLV--TEAAPAVAPASATPWPLSS 93
 QY 115 -IPSNTDYPGPBHFEEFTFQOSSTAKSATWTSPLKKYQCAKTCPIQKVSTPPPGT 173
 Db 94 SVPSQTYYGNGYGFHLGFQSGTAKSYCTYSISLNKLFCOLAKTCPIYQVWYTSTPPPGT 153
 QY 174 AIRAMPVYKKAAEHTDVTWKRCPNHELGDFNEQASAPASHLRLRVEGNLNSQYVDDPVTG 233
 Db 154 RVTRAMAYKKSQHMTTEVVRCPHHERCSD-GDG-LAPQHILYEGNPYAYLDDRQTFR 211
 QY 234 QSVVYVYEPPOGYTETTLYNFCNCNSCGVGNRPLLIITLNRDQVTLGRSFEGR 293
 Db 212 HSWVVPYEPPEVGSDTYTHKYMCNSCMGGNRRPLLTIDESSGNLGRSFEV 271
 QY 294 ICACPGRDKADEHYREQ---ALNESSAKNGAASKRAFKQSPPAVPAALGAGYVKKRH 349
 Db 272 VCACPRDRDTEEFKREKCFELPGSA-----KRALPTSTSSPQ----QKKRP 320
 RESULT 8

QY 350 GDEDFTTYLQYRGRENFMKLESLELME 379
 C:Species: Oryctolagus cuniculus (domestic rabbit)
 C:Date: 11-Apr-1997 *sequence_revision 09-May-1997 *text_change 23-Jul-1999
 C:Accession: JC6193
 R:Le Goas, P.; May, P.; Ronco, P.; de Fromental, C.C.
 A:Title: cDNA cloning and immunological characterization of rabbit p53.
 A:Reference number: JC6193
 A:Accession: Av3073
 A:Molecule type: DNA
 A:Residues: 1-393 <LAM>
 A:Cross-references: EMBL:X01405; GB:W13121; GB:N00032; PID:9189460; PID:AA59987.1;
 R:Chumakov, V.L.; Chumakov, P.M.; Samarina, N.N.; Georgiev, G.P.
 Gene 70, 245-257, 1988
 A:Title: A variation in the structure of the protein-coding region of the human p53 g
 A:Reference number: A25224; MUID:87064416
 A:Accession: A22224
 A:Molecule type: DNA
 A:Residues: 1-393 <UCU1>
 A:Cross-references: EMBL:M22898; PID:9189474
 A:Note: this 72Arg allele appears to be about 5 times more frequent than the 72-Pro
 A:Accession: U04356
 A:Molecule type: DNA
 A:Residues: 1-71, 'P', 73-393 <BUCC2>
 A:Cross-references: EMBL:M22898; PID:9189474; PID:9189476

- A; Note: this 72 PRO allele was found in both normal and malignant cell lines
 R; Chumakov, P.M.; Alimazov, V.P.; Jenkins, J.R.
 Submitted to the EMBL Data Library, August 1990
 A; Reference number: S40773
 A; Molecule type: DNA
 A; Residues: 1-393 <CHD>
 A; Cross-references: EMBL:X54156; PIDN:CAA38095.1; PIDN:935214
 R; Matlashewski, G.; Lamb, P.; Peacock, J.; Benchimol, S.
 EMBO J. 3, 3257-3262, 1984
 A; Title: Isolation and characterization of a human p53 cDNA clone: expression of the human p53 cellular tumor antigen: cDNA sequence and expression in COS cells.
 A; Reference number: S42659; MUID:85126934
 A; Accession: S42669
 A; Molecule type: mRNA
 A; Residues: 101-393 <MK11>
 A; Cross-references: EMBL:X01405; PIDN:CAA25652.1; PIDN:9642241
 R; Zakut-Hourai, R.; Biencz-Tadmor, B.; Givoli, D.; Orei, M.
 EMBO J. 4, 1251-1255, 1985
 A; Title: Human p53 cellular tumor antigen: cDNA sequence and expression in COS cells.
 A; Reference number: A22837; MUID:85230577
 A; Accession: A22837
 A; Molecule type: mRNA
 A; Residues: 1-71, 'P', 73-393 <ZAK>
 A; Cross-references: EMBL:X02469; EMBL:M60950; NID:935209; PIDN:CAA26306.1; PIDN:935210
 R; Harlow, E.; Williamson, N.M.; Ralston, R.; Helfman, D.M.; Adams, T.E.
 Mol. Cell. Biol. 5, 1601-1610, 1985
 A; Title: Molecular cloning and in vitro expression of a cDNA clone for human cellular tumor antigen p53.
 A; Reference number: A55060; MUID:85267676
 A; Accession: A55060
 A; Molecule type: mRNA
 A; Residues: 1-71, 'P', 73-272, 'H', 274-393 <HAR>
 A; Cross-references: GB:K03139; PIDN:9189479
 A; Experimental source: clone pRS2-, cell line A431
 R; Harris, N.; Brill, E.; Shohat, O.; Prokocimer, M.; Wolf, D.; Ariai, N.; Rotter, Y.
 Mol. Cell. Biol. 6, 4650-4656, 1986
 A; Title: Molecular basis for heterogeneity of the human p53 protein.
 A; Reference number: A93086; MUID:87089826
 A; Accession: A25397
 A; Molecule type: mRNA
 A; Residues: 1-78, 'T', 80-393 <HAR1>
 A; Cross-references: EMBL:MA14694; NID:9339813; PIDN:AAA61211.1; PIDN:9339814
 A; Experimental source: clone p53-H-1, transformed hybridoma SV-80 cell line
 A; Accession: B25397
 A; Molecule type: mRNA
 A; Residues: 1-71, 'P', 73-78, 'T', 80-393 <HAR2>
 A; Cross-references: EMBL:MA14695; NID:9339815; PIDN:AAA61212.1; PIDN:9339816
 A; Experimental source: clone p53-H-19, transformed hybridoma SV-80 cell line
 R; Matlashewski, G.J.; Tuck, S.; Pim, D.; Lamb, P.; Schneider, J.; Crawford, L.V.
 Mol. Cell. Biol. 7, 961-963, 1987
 A; Title: Primary structure polymorphism at amino acid residue 72 of human p53.
 A; Reference number: S42452; MUID:87144273
 A; Accession: S42452
 A; Molecule type: mRNA, DNA
 A; Residues: 66-71, 'P', 73-79 <MK12>
 A; Experimental source: clone lambda C113
 A; Note: 72-res was also found, and appears to represent a polymorphism
 A; Accession: S42553
 A; Molecule type: mRNA, DNA
 A; Residues: 66-79 <MK13>
 A; Experimental source: clone J5K
 R; Farrell, P.J.; Allan, G.J.; Shanahan, F.; Vousden, K.H.; Crook, T.
 EMBO J. 10, 2879-2887, 1991
 A; Title: p53 is frequently mutated in Burkitt's lymphoma cell lines.
 A; Reference number: 138082; MUID:92007731
 A; Accession: 138082
 A; Molecule type: mRNA
 A; Residues: 1-189, LUSILSERKEICWWSIWMTLEFDIVWWCMNSRGRALL' 'VPSPSTTTCTVTPAWAA' <FO1>
 A; Cross-references: EMBL:X60010; NID:9506432; PIDN:CAA42652.1; PIDN:9506433
 A; Note: deletion of a C nucleotide causes a frameshift at position 566
 A; Accession: 138083
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-393 <FO3>
 A; Cross-references: EMBL:X60012; NID:9506436; PIDN:CAA42627.1; PIDN:9506437
 A; Accession: 138084
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-245, 'T', 247-393 <FO4>
 A; Cross-references: EMBL:X60013; NID:9506438; PIDN:CAA42628.1; PIDN:9506439
 A; Accession: 138085
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-236, 'I', 238-393 <FO5>
 A; Cross-references: EMBL:X60014; NID:9506440; PIDN:CAA42629.1; PIDN:9506441
 A; Accession: 138087
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-247, 'Q', 249-393 <FO6>
 A; Cross-references: EMBL:X60015; NID:9506442; PIDN:CAA42630.1; PIDN:9506443
 A; Accession: 138088
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-71, 'P', 73-237, 'Y', 239-393 <FO7>
 A; Cross-references: EMBL:X60016; NID:9506444; PIDN:CAA42631.1; PIDN:9506445
 A; Accession: 138089
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-71, 'P', 73-162, 'H', 164-393 <FO8>
 A; Cross-references: EMBL:X60017; NID:9506446; PIDN:CAA42632.1; PIDN:9506447
 A; Accession: 138090
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-212, 'O', 214-393 <FO10>
 A; Cross-references: EMBL:X60018; NID:9506448; PIDN:CAA42633.1; PIDN:9506449
 A; Accession: 138091
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: mRNA
 A; Residues: 1-71, 'P', 73-162, 'H', 164-393 <FO11>
 A; Cross-references: EMBL:X60020; NID:9506452; PIDN:CAA42635.1; PIDN:9506453
 A; Note: all sequences submitted to the EMBL/GenBank/DBJ databases June 1991
 R; Futrell, P.A.; Barrett, J.C.; Wiesman, R.W.
 Nucleic Acids Res. 19, 6977, 1991
 A; Title: An Alu polymorphism intragenic to the TP53 gene.
 A; Reference number: I38093; MUID:92007726
 A; Accession: 138093
 A; Status: translated from GB/EMBL/DBDJ
 A; Molecule type: DNA
 A; Residues: 1-393 <FO12>
 A; Cross-references: EMBL:X54156; PIDN:935213; PIDN:CAA38095.1; PIDN:935214
 R; Yamada, Y.; Yoshiida, T.; Hayashi, K.; Sekiya, T.; Yokota, J.; Hirohashi, S.; Nakagawa, T.; Hensel, C.H.; Xiang, R.H.; Sakaguchi, A.Y.; Naylor, S.L.
 Oncogene 6, 1067-1071, 1991
 A; Title: Use of the single strand conformation polymorphism technique and PCR to
 A; Reference number: I58354; MUID:91286386
 A; Accession: I58354
 A; Status: preliminary; translated from GB/EMBL/DBDJ

A; Molecule type: mRNA
 A; Residues: 1-93 <RIG>
 A; Cross-references: EMBL:X11384; NID:922795; PIDN:CAA34420.1;
 C; Superfamily: cellular tumor antigen P53
 C; Keywords: apoptosis; cell division control; DNA binding; homotetramer; nucleus; phosphotransferase; zinc (Cys, His, Cys, Cys) #status Predicted
 P; 392/Binding site: phosphoryl-RNA (Ser) (covalent) #status Predicted

A; Molecule type: mRNA
 A; Residues: 1-93 <RIG>
 A; Cross-references: EMBL:X11384; NID:922795; PIDN:CAA34420.1;
 C; Superfamily: cellular tumor antigen P53
 C; Keywords: apoptosis; cell division control; DNA binding; homotetramer; nucleus; phosphotransferase; zinc (Cys, His, Cys, Cys) #status Predicted
 P; 392/Binding site: phosphoryl-RNA (Ser) (covalent) #status Predicted

Query Match Score 21.2%; Best Local Similarity 42.1%; Matches 160; Score 718.5%; Best Local Similarity 42.1%; Pred. No. 9e-43; Mismatches 103; Indels 59; Gaps 11; Gaps 11;

Qy 14 TFEHWSLEPDSTYFPLDPOSSRGNNVGGDSSMDYFHLEGMTTISYMAQFNLLSSTD 73
 Db 18 TFSDLWKLLPENNYLSPLSQAA-----*YDML-----LSPDLAW-LTSDPGP 60

Qy 74 QMSSRAASAPYTPPHAAASPHTSPYAAPSSYFTDMSPAP-----VIPSNTDYPGPHF 127
 Db 61 DEAPRMEAP----HMAPTPAAPTAAAP-----APASWPLSSSSVPSQKTYHSYGF 109

Qy 128 EVTFQOSSTAKSAWTYSPFLKKLYCQIAKTCPIQKVSTPPPGTATRAMPYKKAEVH 187
 Db 110 RLGFHLHGTTAKSVCTYSPDLNMFCQLAKTCPVQLWDSTPPPGSRVRAIYKTSQHM 169

Qy 188 TDVVKRCPNHELGDRDNFNEQGOSAHLIRVEGNLNLSSYVDDPTVGROSVVVYEPPOVGT 247
 Db 170 TEVVRCPHHERCSD-SDG-LAPPQLLRVEGLRLVEYESDDANTFRISVVVYEPPEVGS 227

Query Match Score 21.4%; Best Local Similarity 41.0%; Matches 157; Score 724.5%; Best Local Similarity 41.0%; Pred. No. 3.4e-43; Mismatches 57; Indels 65; Gaps 9; Gaps 11; Gaps 11;

Qy 248 EFTTLYNHCNSSCYGGNNRRPPLIITLEMRDQYTLGRSSEGRCACCPGRDRKADED 307
 Db 228 DCTTIIHYNTMCNSSMGGANRNPRLITLEDSSGNLGRNSEVRCACPGRDRKEEE 287

Qy 308 HYREQALNESSAKNG-----AASKRAFOSPPRVPALGAGVKKRHRGDEDTIYLQV 359
 Db 288 NFR-----RKGEPCHELPFGSTRRALPNNTSSSPQ----PRKKPLDGEYFTLQI 332

Qy 360 RGRNETEILMKLKESLEME 379
 Db 333 RGRERFEMFRELNEALELK 352

RESULT 11
 DNMS53
 cellular tumor antigen P53 - mouse

C; Alternate names: oncogene P53
 C; Species: Mus musculus (house mouse)
 C; Date: 28-Aug-1985 #sequence_revision 04-Oct-1996 #text_change 22-Jun-1999
 C; Accession: A22739; S06336; A02644; S88823; S40014; I48703;
 R; Bierenz, B.; Zabut-Houri, R.; Givol, D.; Oren, M.
 EMBO J. 3, 2179-2183, 1984
 A; Reference number: A22739; MUID:8502173
 A; Accession: A22739
 A; Molecule type: DNA
 A; Residues: 1-134; 'V', 136-390 <CHD>
 R; Zabut-Houri, R.; Oren, M.; Biens, B.; Lavie, V.; Hazum, S.; Givol, D.
 Nature 306, 594-597, 1983
 C; Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
 C; Accession: S06336; MUID:88221682
 R; Chunakov, P.M.
 Bloorg, Khan, 13, 1591-1694, 1987
 A; Title: Primary structure of DNA complementary to murine oncoprotein p53 mRNA.
 A; Reference number: S06336; MUID:84068204
 A; Accession: S06336
 A; Status: not compared with conceptual translation

A; Molecule type: mRNA
 A; Residues: 1-134; 'V', 136-390
 R; Rigaudy, P.; Eckhart, W.
 Nuclear Acids Res. 17, 8375, 1989
 A; Title: Nucleotide sequence of a cDNA encoding the monkey cellular phosphoprotein p53.
 A; Reference number: S06334; MUID:90045967
 A; Accession: S06334

RESULT 10
 S06594
 cellular tumor antigen P53 - green monkey
 C; Species: Cercopithecus aethiops (green monkey, grivet)
 C; Accession: S06594
 C; Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
 A; Title: A single gene and a pseudogene for the cellular tumour antigen p53.
 A; Reference number: A02684
 A; Accession: S06336
 A; Molecule type: mRNA
 A; Residues: 1-139; 'H', 161-167, 'G', 169-233, 'I', 235-390 <ZAK>
 A; Cross-references: GB:X01237; GB:X01700; NID:933575
 R; Arai, N.; Nomura, D.; Yokota, K.; Wolf, D.; Brill, E.; Shohat, O.; Rotter, V.

Mol. Cell. Biol.	6	3232-3239,	1986	Db	239 IHYKYMNSCCMGNNRRLPTLTIDLESGGNLGRDSEEVRYCACPGRDRTEEENFK
A;Title:	Immunologically distinct p53 molecules generated by alternative splicing.		QY	312 QQLNLESSAKGAAASKRAFQSPPAVPAAGVKKRKGEDDYLQVRGENFELMKL	
A;Reference number:	S38822;	MUID:87064640	Db	312 :: :	
A;Accession:	S38822		Db	312 QQLNLESSAKGAAASKRAFQSPPAVPAAGVKKRKGEDDYLQVRGENFELMKL	
A;Status:	preliminary		Db	312 :: :	
A;Molecule type:	mRNA		Db	312 :: :	
A;Residues:	1-390 <TRA1>		Db	312 :: :	
A;Cross-references:	EMBL: M13872;	NID: 9200198; PIDN: AAA39881.1; PID: g200199	Db	312 :: :	
A;Accession:	S38823		Db	312 :: :	
A;Status:	preliminary		Db	312 :: :	
A;Molecule type:	mRNA		Db	312 :: :	
A;Residues:	1-167, G'	'169-233,'I', 235-390 <TRA2>	Db	312 :: :	
A;Cross-references:	EMBL: M13873		Db	312 :: :	
R;Arai, N.; Nomura, D.; Yokota, K.; Wolf, D.; Brill, E.; Shohat, O.; Rotter, V.			Db	312 cellular tumor antigen p53, minor splice form - mouse	
submitted to the EMBL Data Library, July 1988			Db	312 cellular tumor antigen p53 (house mouse)	
A;Accession:	S40014		Db	312 C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 23-Jul-1999	
A;Accession:	S40014		Db	312 C;Species: Mus musculus (house mouse)	
A;Molecule type:	mRNA		Db	312 C;Accession: S38824; S35478	
A;Residues:	1-167, G'	'169-390 <TRA3>	Db	312 R;Arai, N.; Nomura, D.; Yokota, K.; Wolf, D.; Brill, E.; Shohat, O.; Rotter, V.	
A;Cross-references:	EMBL: M13873; NID: 9200200; PIDN: AAA39882.1; PID: g200201		Db	312 Mol. Cell. Biol. 6, 3232-3239, 1986	
R;Jenkins, J.R.; Ridge, K.; Redmond, S.; Wade-Evans, A.			Db	312 A;Title: Immunologically distinct p53 molecules generated by alternative splicing.	
Nucleic Acids Res.	12	5609-5626, 1984	Db	312 A;Reference number: S38822; MUID: 8706440	
A;Title:	Cloning and expression analysis of full length mouse cDNA sequences encoding th		Db	312 A;Accession: S38824	
A;Reference number:	148703; MUID: 84272240		Db	312 A;Molecule type: mRNA	
A;Accession:	148703		Db	312 A;Residues: 1-381 <TRA>	
A;Status:	preliminary		Db	312 A;Cross-references: GB: M13874; NT: g200202; PIDN: AAA39883.1; PID: g200203	
A;Molecule type:	mRNA		Db	312 A;Cross-references: EMBL: M13874; NID: 9200202; PIDN: AAA39883.1; PID: g200203	
A;Residues:	1-47, R'	'49-78, 'QW', 82-390 <RES>	Db	312 A;Note: the nucleotide sequence was submitted to the EMBL Data Library, July 15	
A;Cross-references:	EMBL: X00741; NID: 95350; PIDN: CRA25323.1; PID: g53571		Db	312 C;Comment: This sequence, produced by alternative splicing of the tenth intron, is not known.	
A;Cross-references:	EMBL: X00741; NID: 95350; PIDN: CRA25323.1; PID: g53571		Db	312 C;Superfamily: cellular tumor antigen P53	
C;Comment:	The tetramer binding protein plays an essential role in the regulation of cell di		Db	312 C;Keywords: alternative splicing; phosphoprotein; zinc	
C;Keywords:	apoptosis; cell division control; DNA binding; homotetramer; phosphoprotein;		Db	312 F: 1-44/Domain: transcription activation #status Predicted <TRA>	
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F: 118-121/Region: DNA-binding core #status Predicted <DBC>			Db	312 F: 108-121/Region: L1 loop	
F: 11-139/Region: nuclear location signal			Db	312 F: 114-139/Region: L1 loop	
F: 160-192/Region: tetramer association			Db	312 F: 160-192/Region: L2 loop	
F: 166-178/Region:保守 region III			Db	312 F: 166-178/Region: L2 loop	
F: 231-252/Region:保守 region IV			Db	312 F: 168-179/Region: L2 loop	
F: 233-248/Region: L3 loop			Db	312 F: 231-152/Region: conserved region III	
F: 267-283/Region: L3 loop			Db	312 F: 233-248/Region: L3 loop	
F: 313-319/Region: nuclear location signal			Db	312 F: 267-283/Region: conserved region IV	
F: 319-357/Region: tetramer association			Db	312 F: 313-319/Region: nuclear location signal	
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F: 173-176.235.239/Binding site: Zinc (Cys, His, Cys, Cys) #status Predicted			Db	312 F: 7.9-12.18.23.37/Binding site: phosphate (Ser) (covalent) #status Predicted	
F: 311/Binding site: phosphate (Ser) (covalent) (by cdc2 kinase) #status Predicted			Db	312 F: 173-176.235.239/Binding site: Zinc (Cys, His, Cys, Cys) #status Predicted	
F: 389/Binding site: phosphoryl-RNA (Ser) (covalent) #status Predicted			Db	312 F: 311/Binding site: phosphate (Ser) (covalent) #status Predicted	
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Best Local Similarity	43.2%	Pred. No. 2.7e-12; Indels 41; Gaps 12;	Db	21 TFGGLWKLIPPE---DILSPRCMDLQLQD---VEEF FEGEREAL 62	
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Query	74 QMSRSAASAPY--TPEHAASYPTHSPYAQSSSTDTMSPAPIPNTDYPGPHEFTF 131		QY	14 TFEHLWSSLEPDTFLPQSSRGNEVGGTDSKDVFEHGEHTTSYNAQFNLLSSTMD 73	
Db	62 RVGAPAAQDPYETPQVAPAPA-TPW---PLSF-----VPSQTKYQGNYGFHGF 110		Db	21 TFGGLWKLIPPE---DILSPRCMDLQLQD---VEEF FEGEREAL 62	
Db	132 QQSSTAKSATWYSPPLKKLQCIAITCPQIKYSTPPPGATARAMPYKRAEHTDVV 191		QY	74 QMSRSAASAPY--TPEHAASYPTHSPYAQSSSTDTMSPAPIPNTDYPGPHEFTF 131	
Db	111 LQSGTATSYMCYTSPPLKKLQCIAITCPQIKYSTPPPGATARAMPYKRAEHTDVV 170		Db	21 TFGGLWKLIPPE---DILSPRCMDLQLQD---VEEF FEGEREAL 62	
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Db	171 RRCPHERCSD-GDG-LAPPHLIRVEGNYPEILEDRTQFRHSSVYYPEPAGSEVTT 228		Db	111 LQSGTAKSATCYSPPPLKKLQCIAITCPQIKYSTPPPGATARAMPYKRAEHTDVV 170	
Db	252 IIYNFMCNSSCYGNNRRLPTLTIDLESGGNLGRDSEEVRYCACPGRDRTEEENFK 311		QY	192 KRCPNHLDGRDUNEGOAPASHLIRVEGNNISQYDPTYGRQSVVYYPEPOGVTEFTT 251	

QY	3	QSTATSPD-----GGTFFEHL-----WSSLEPDSTYFDLPOSSRGNNNEVVGTD 46
Db	102	ESSTSPLLEMKINFLGNPFGSGLNLNIPILSPLLGSSA-----PSEHPSDFQRGPTS 156
QY	47	SSMDVFLEG-----TTSMQAOFNLISSTMDQNSRASA-SP- 85
Db	157	TSD--NDGTPVDRERSGTPTQDEMMDKTTSYSTDMSLSKTISPGSSTPSSTRSPP 214
QY	85	-----TPEHAASVPH-----SPYAOPSSSTFDTMSPAVPIST----- 120
Db	215	GRDESPRELSNSVSYRPFLGLGSSESPYKPSDME--TPSSLSSQQEKFYDTSQED 272
QY	120	-----DYPGPHEFTYFOQGSTANSA-----TWYSPLLKLYCIAKTCPIQIXV 165
Db	273	EDYRDFEYSGCPPSAMNLKEPASILKSSKLSDTTEQPISS-YSHRAQ--EFGYKS 329
QY	166	STPPPGTAIRAMPYKKAERIVTDVKRCP-----NHEIGRD----FN 204
Db	330	APP-----SVRAL-----LDSENCDRLSSSPGLGAFSYRGNEGSDRSPPSKN 376
QY	205	EGOSAPASHLIRVEGNLNS-----QYDPPD-----VTGROSVVYV-EPP 243
Db	377	DSEFTPDSSN----HNSLSOSTGHISLPQKQDPSPHVPHRSFSPNTLAAPTGPB 431
QY	244	QVGTEFTTLYNMCMNSCYGGMN-----RRPILIIITLEMDDQVGLGRSRFEGRIC-- 296
Db	432	TSGVE--KVLASTISSTSTIEFKMLKNASRKP-----SDKHFQAPSKGTPSDG 480
QY	296	-----ACPGRDKADEDHRYRQQA-----LNESSAKNGA-----ASKRAF 330
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QY	331	KQSP-----PAVPALAGAVKRRHGEDD-----YLVQVRGRENPEILMKLKESEL----- 378
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QY	378	-----MELVLP-----QPLVDSYRQQQQLLORPSHLQP-----PSYGP 409
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QY	410	VLSPMNKHVGGM-----NRLPSTN-----QLVGOPPPHSSAAATPNLGPVPGP 451
Db	659	PVPP--KDHRGIFSDADPHLPSYDLSNPETKEALAIAAAPPAPPGENHSGLFPTPPP- 716
QY	452	MLNIGHAYPANGENSSHSQAOSNYSGSHCTTPPPYHADPSLYSF-----LNLGCPCIE 507
Db	716	-----PPPGEIIS--SGGSGWPFPSTPPPPPPYDHSGVYPFPAPPLAEHGVAJAVA 764
QY	508	YFTSGQLSQIYH-----LQNLTIEDGALKIPEQYRMITWRLQDLKQHDYSPAQLRSSL 564
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C;Species: Arabidopsis thaliana (mouse-ear cress)		
C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 *text_change 30-Apr-1999		
C;Accession: TA4518		
R;Bevan, M.; Brandt, P.; Dose, S.; Jarke, D.; Scharfe, M.; Schon, O.; Hohels, C;Submitted to the Protein Sequence Database, February 1999		
A;Reference number: Z15576		
A;Accession: TA4518		
A;Molecule type: DNA		
A;Residues: 1-364 <BEV>		
A;Cross-references: EMBL:AL035353		
A;Experimental source: cultivar Columbia; BAC clone F16A16		
C;Genetics:		
, Note: K16A060		

A; Map position: 4
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A; Note: F16A16.80

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